

## BENEVOLENCE IN ANIMALS.

## INSTANCES OF ITS OCCURRENCE AMONG

## WILD AND DOMESTICATED SPECIES.

THE LATTER ARE PRONE TO DIRECT THEIR  
KINDLY OFFICES TO MAN, RATHER THAN  
TO THEIR FELLOW-BEASTS.

From The Spectator.

Without multiplying instances of the acquired character of the benevolent impulse in man, it is worth remembering that even civilized races relapse with astonishing pertinacity to the non-benevolent state, and that in cultured Athens the horrible human sacrifices with which the story of ancient Greece is replete survived as a national institution, and that every year a man and a woman were whipped through the streets and then burned alive to satisfy some such impulse as prompts similar acts among the Congo negroes. At the present moment the absence of benevolence in any form among the non-developed races of to-day needs no better illustration than the fact recorded by Captain Hinde, that on the Upper Congo no negro lives beyond forty, that being the age at which their fellow-men directly or indirectly cause their death.

If analogy demands the exercise of benevolence by one animal toward another, it is not quite clear in what sphere this sentiment is to find its realization. It is clear that we cannot expect it from all animals to all other animals, for the carnivorous creatures naturally act "toward their kind." Probably those who would at any rate desire to see this trait would expect to see either a general tendency to mutual aid and comfort among the non-carnivorous warm-blooded creatures, or at least a desire to perform such good offices among those of the same species. We speak now of animals in a state of nature, not domesticated. The former is probably an idea quite beyond the range of the ordinary animal mind. It is possible that those of one species feel sorrow when those of another are in trouble or pain. But there is no evidence whatever that wild animals ever do this. There is a kind of chance association on the same feeding ground, or sometimes under stress of flood or fire. But we can recall no single instance, for example, of a wild animal of one species attempting to defend an animal of another, even when they are quite competent to do so. It is doubtful if a case has been recorded of buffaloes charging to protect a wounded antelope, though they will do so to save a wounded member of their own herd, or of elephants, or baboons, or other creatures which live in society, attempting to protect the wounded young of any other species but their own. Among the creatures which seem to assume the role of sentries for the protection of other animals, there is one, the rhinoceros bird, whose behavior almost justifies the belief that it feels some duty to the antelope or buffalo on whose insect enemies it is feeding so extraordinarily and apparently organized is the war which it maintains. But this is a very restless, active bird, and it is quite possible that its familiarity with the species on whose backs it finds food makes it identify itself to some extent with them. It probably imagines the buffalo to be almost a part of itself. In any case, the instances of indifference are so overwhelming that we may set aside the assumption that there is a common sympathy among non-related animals, even when not carnivorous. It is not a defect of character, but of comprehension.

The relations between those of the same species are closer, though exhibitions of helpfulness are by no means general, and instances of positive ill-treatment are common. The monkeys who drown the objectionably sick by shoving them off trees into the river are certainly rather worse than the Greeks who "maim" Philoctetes for the same reason. But with this should be contrasted Brehm's story of the rescue of the young baboon from his dogs by a patriarch of the troop, and the encouragement given by an older stag to a young one which feared to jump a fence. Lord Lovat gives an admirable description of this scene in the volume of the "Badminton Library" on "Deer-stalking." The old stag reached over toward the young one at last, and "actually kissed him"; but the youngster would not jump. Animals are so "helpless" themselves when anything goes amiss, especially in cases of accident, that they can hardly be expected to do much for others. But the impulse is often there in the related kinds, though it is not extended to the non-related. Otters run round a trapped otter all night. Cats and foxes visit the bodies of their dead, and so do stoats and weasels. It is a rule with trappers to leave these near a trap, so we may conclude that these animals probably visit their fellows when trapped. The writer once saw an odd instance of this instinctual concern—probably not very deep, for the actors were sparrows. A brick trap had been set in a yard, and a sparrow caught. All the sparrows in the neighborhood had learned it, and were sitting in crowds on hedges, cucumber frames, sheds and buildings, discussing the situation, or staring moodily at the trap where the captive was imprisoned, but quite invisible. Next day a robin was caught, but the sparrows showed no concern whatever.

This tendency among the wild races finds definite expression among the domesticated animals, though instances are not very common. We have seen a small pig, stuck in a paling through which it had tried to squeeze, assisted by an older one inside. Attracted by its cries, it took the small pig's head in its mouth and tried to pull it through, in doing which it almost pulled the sufferer's head off. In another case a cat deliberately fetched its owner to assist another cat which was lying helpless in a fit. Moreover, domesticated animals are to some extent "progressive," and have realized the notion of common good among other creatures than their own stock. There is a good deal of service and benevolence among very different domesticated animals, especially in the form of protection, sharing of food, and forbearance. Specialized instances in which dogs or cats have taken food to others could doubtless be authenticated, though the writer has not witnessed a case. But there is the strongest of all evidence that they have a tendency to perform these and other services to other animals, because the domesticated creatures voluntarily offer these services of benevolence to man. How can any one doubt that animals (in domestication) are willing to feed each other, when there are cats all over England and Scotland which delight in bringing food as presents to their owners? We need not go back to the historic cat which caught a pigeon every day and brought it to its master when a prisoner in the Tower.

It is the natural impulse, usually of male cats, to do this. The writer has seen it constantly, and if references are needed we need only turn to St. John, who mentions a Highland shepherd whose cat brought him something edible nearly every day in the year. Not the least interesting fact in the growth of the sense of benevolence

in animals is that when it is engendered, usually in a rudimentary form, but the same in kind as the virtue which we understand by the word, it is at once diverted naturally from other animals and directed by preference to the service of man. Thus the other creatures benefit only in the smallest degree. Proud of its new idea of being serviceable and beneficent, the animal devotes itself, not to other animals, but to its master, who unconsciously absorbs all the benefits which the new "virtue" in the beast prompts it to bestow.

## A STEER THAT ROUNDS UP CATTLE.

A TRAINED ASSISTANT OF RANCH COWBOYS ON  
THE SAN MARCOS.

From The San Francisco Call.

The greatest "cowboy steer" in the world has his home on the San Marcos ranch, near Santa Barbara.

By some people he is simply called a trained steer; by others a "cavestro." But, as he does the hardest kind of cowboy work, and a good deal of a nature the cowboys cannot do, it would seem as if the Texas name "cowboy steer" is the most appropriate.

On every well-regulated cattle ranch in the West there is at least one steer trained to help the cowboys in their work. But there is none as proficient in his business as the one on the San Marcos ranch.

The cowboys have named this fellow El Rey (the king), and he is certainly deserving of the title.

He holds his title and his throne by the power of brain and muscle. The many manifestations of extraordinary intellect exhibited by dogs and trained horses are surprising enough in themselves, but they dwindle into commonplace when one considers the peculiar accomplishments of the cavestro El Rey. The fierceness of wild cattle is simply appalling.

The credit for the conquering and education of El Rey is due entirely to the pluck and patience of a vaquero named Louis Ruiz. And when his labors were finished a wonderful work had been accomplished. From the wildest and most vicious of them all El Rey had become as docile and obedient as a dog.

As we all know, the ordinary cavestro is trained, when the riata has captured one of the bellowing, plunging, maddened animals, to range himself alongside the captive and permit the vaquero to secure him firmly to the horns of the captive by means of the riata.

When the rodeo takes place these trained animals are sent into the dense undergrowth and forests to rout out the hiding and terrified cattle. Even the cowboys, strong and skilled as they are, would never be able to drive them into the open country. But with the best of the cavestros a great deal of prodding, pushing and swearing is considered necessary to make them perform their duties.

With El Rey all is different. At the word of command he is off through the thickets, driving from their hiding-places the stubborn cattle. He waits for no riata. Locking his own big, strong and crooked horns into the horns of his indignant brother, he hauls and tugs and pulls until victory is his. Many and fierce are his fights. Wild is his rage when, after a terrible struggle, with victory almost in reach, the captive succeeds in slipping from the terrible crook of El Rey's horns and dashes off once more to the chaparral and freedom. But the wild steer's liberty is short-lived. El Rey never falters in his pursuit, and never returns except in company with his struggling prisoner.

Having brought in his captive, El Rey resolutely stands by and holds him with his horns till he is identified, branded, marked, killed, or whatever the cattlemen elect to do with the animal. All the while the captive is held steadily and stoutly till the cattlemen have finished and El Rey is ordered to "let go."

Perhaps the most remarkable thing is the coolness with which El Rey stands quietly holding down the head of the captured animal while the vaquero deftly touches a knife to the captive's throat. The sight of blood does not seem to affect him in the least.

When one of the refractory cattle is brought in by a cavestro he is immediately thrown to the ground and his hind legs are securely tied together by the strong riata. His head is held down by the trained steer, and it is then the executioner operates.

The ordinary cavestro does not like the operation of holding another steer to be killed. He would willingly get away if he could, but he is usually too tightly bound and must play his part to the end. But El Rey needs no riata to compel him to do his duty. With his terrible horns locked of his own accord into the horns of his captive he stands a sturdy and interested participant until the gleaming knife of the vaquero lets the lifeblood spurt forth.

With his master, the Vaquero Ruiz, El Rey is as gentle as a favorite horse could be. To the home vaqueros he is calmly indifferent, but with strangers all his native fierceness and viciousness come into life again. King of his kind is El Rey, and gold cannot buy him.

## HONEY BEES FROM THE PHILIPPINES.

From The Chicago Tribune.

There is one race inhabiting the Philippines which will be a welcome addition to American citizenship, and will be afforded every facility and inducement to immigrate to the United States and engage in the skilled labor in which it has no peer. This is the giant East Indian honey bee, and investigation of its work and immense capacity for making honey and wax has interested the Department of Agriculture in the consideration of an early effort to introduce it into the United States. Secretary Wilson said in connection with the proposed importation of these bees to the United States that a special appropriation would be asked in his coming report to Congress for the investigation of the bees of the world, and a swarm of the big Philippine honeybees would be brought to America as soon as the question of their value and the possibility of their acclimatization have been fully determined. There will also be an appropriation requested for the study of the agricultural and kindred products of the newly acquired territory of the United States, and even under this head the great honey bees of the East could be introduced by the Department to this country.

## THE ELEPHANT IS GREAT IN CRIME.

From Outing.

Few more impressive confessions can be imparted than one in which a Hindoo describes how he knows his elephant intends to destroy him. It is all so seemingly trivial, and yet in reality of such deadly significance. His story is so full of details that prove the man's profound understanding of what he is talking about that one remains equally amazed at the brute's power to dissemble and its intended victim's insight into the would-be murderer's character. And yet, from the psychological standpoint, an elephant never gives any other such indication

of mental power as is exhibited in its revenge. That patient, watchful, implacable hatred, often provoked simply because a man is in attendance upon another animal (for it is the rule with tusked to detect their next neighbors), speaks more conclusively of a high intellectual guide than all stories, true or false, of concentration and fixedness of purpose that have been told of their ability. Such concentration and fixedness of purpose, such careful, unrelaxed vigilance, such perfect and consistent pretence, and, when the time comes, such desperate, unhesitating energy as homicidal animals exhibit, are impossible without a very considerable, although in this instance very irregular, development.

No one can deny that if this creature is great at all its greatness shows itself in its crimes. These have caused it to be worshipped in the East, where men venerate nothing but merciless, irresistible force, and where an exhibition of those qualities and traits described fully accounts for the formula, "My lord the elephant."

## HORN-BORING INSECTS.

CATERPILLARS THAT PERFORATE ANTLERS IN  
AFRICA AND INDIA.

From The London Mail.

A curious fact which for many years has proved a bone of contention among scientific men has just been decided. Sportsmen and naturalists when hunting in India and Africa have from time to time had brought under their notice the horns of various species of deer and buffalo which have been more or less perforated by insects. On careful examination it was found that the little creatures which tunneled and made their home in the hard fibre of the horn were the caterpillars, or larvae of a moth, belonging to the same family as the common and all too familiar clothes-moth.

From their diminutive size the moths belonging to this family have received the name of tinidæ; and it has been observed that they are all more or less given to making their homes in strange places during the larval stage of their existence. The little larvae of our old enemy the clothes-moth, for instance, make for themselves protective cylinders out of the cloth they so greedily devour.

Sometimes these tubes present a very curious appearance owing to their having been enlarged as the insect has grown and different colored materials used for the new portions of the old case. The larvae of another branch of this family, the calyx of the flower of the common marjoram being a very popular dress, while others are of a mining disposition, and love to excavate elaborate tunnels in the leaves of the honeysuckle.

Strange as these habits appear, it is yet more wonderful that a species of these soft-bodied insects should be capable of boring into so hard a substance as the antlers of a deer. During the forty-five or fifty years that these horn-devouring larvae have been under observation, the various stages of their existence have been carefully noted, from the laying of the egg upon the horn by the mother moth to the final appearance of her offspring as perfect male and female insects.

The larvae on emerging from the egg bore down into the horn, and when they have eaten their fill are ready for their chrysalis sleep they tunneled up to the surface, so that they may have a convenient exit by which to make their escape when the pupal sleep is over and they have become perfect moths.

But although so much of their life history was known, there still remained one problem unsolved. This knotty question was that no one knew for certain whether these larvae attacked the horns and antlers of the buffalo and deer while the animals were alive or only after death. After many years of speculation and conflicting opinions it has at last been conclusively proved that these insects do infest the horns of living quadrupeds, for the news has just come to hand that both the larvae and chrysalis have been taken from the horns within an hour of the death of the animal to which they belonged.

## AN ARMY OF TOADS.

From The Worcester Gazette.

There were never so many toads at the South End as seen there this fall. It is doubtful if there were ever so many toads in any neighborhood in New-England, and the residents wonder where they all came from. There are big toads and little toads and toads all the way between. The popular idea is that it has rained toads, as sometimes happens, according to the legend. Dr. Hodge, of Clark University, is to blame for it all. The doctor discovered, by careful observation of toads kept in congenial confinement in little pens in his garden, that toads are humanitarians of the highest order, that they can get away with more houseflies than all the artificial flytraps in creation. Realizing the importance of the reptile, he placed in the pens bars of water in which the toads deposited their eggs. The eggs hatched. That is all there is to it. The toadlings flourished and became fat, slow-hopping toads, with lightning tongues that lapped in every fly that came within range.

Any one who has ever seen the eggs of a toad will realize what the South End is getting in the way of flytraps. Dr. Hodge promises to add several hundred thousand to the colony in another year. Think of the warty influence thus sent abroad! A wart or toad ordinance will be needed, or there will be never a fly left to perpetuate the species. The surgeons of the United States Army should provide a toad battery at every camp of troops, that the malaria-carrying insects may be attacked without mercy. But are toads malaria-proof? May they not be exterminated by the tainted fly? The South End must be fortunate in the matter of flies. Were it not for mosquitoes screens would soon be unnecessary. What is wanted now is a nocturnal mosquito-destroying toad.

## CORNWALL'S BURIED TREASURE.

From The London Outlook.

The fortune of a Croesus lies buried under the sands and rocks near Gunwalloe, in the Lizard district of Cornwall. In 1571 a Spanish ship, bearing a freight of \$17,000,000 and many bars of gold to London for safe custody that could not be found in Spain, was wrecked amid the sand and rocks some distance from the shore—a cruel, murderous-looking shore. This more than a fortune has been buried since. A part of the treasure was once secured by an enterprising Cornishman (the Government claiming its toll) and more than one band of speculators has tried to rob the sea of its spoil and has been defeated by the great Atlantic rollers and driven home out of pocket, but yet not without hope. There is some talk of making another search for this hidden wealth; but Cornishmen have been so bitten in many ventures that they may well button up their pockets.

## A FAVORITE RESORT OF FISH.

## UNUSUAL SPECIES FOUND AT WOOD'S HOLE.

UNKNOWN VARIETIES AND STRAGGLERS FROM  
OTHER SEAS AROUND THERE.

Hugh M. Smith, of the United States Fish Commission, in Science.

During the last four years a rather large number of fishes, chiefly sub-tropical, have been collected by the United States Fish Commission at Wood's Hole; some of these were not previously known on the Middle Atlantic and New-England coasts, some had not before been detected in United States waters, one was new to the Western Atlantic, and two were undescribed. Notwithstanding the continuous systematic collecting which has been carried on at this place for more than a quarter of a century, nearly every season yields unlooked-for additions, the present year being no exception. There are now known from the immediate vicinity of Wood's Hole 222 species of salt-water and fresh-water fishes; this is a much larger number than has been reported from any other single locality in the United States except Key West, or, in fact, from any State north of Florida. Going back only to the fall of 1894, the record of additions to the local fish fauna comprises twelve species belonging to ten teleostean families; most of these are so interesting that they will be separately referred to, five being new to United States waters.

The mackerel family (Scombridae), which was already very generously represented at Wood's Hole by ten species, added another member in 1895, when a specimen of long-finned albacore (*Germo alalunga*), three feet in length, was taken in the harbor. This pelagic fish is known from the Pacific, the eastern Atlantic and the Mediterranean, but has apparently not been met with elsewhere in the Western Atlantic.

Three species of "butterfly-fishes" (*Chaetodontidae*), a brilliantly colored family of the tropical seas, have been taken at Wood's Hole. One of these, the "parche" (*Chaetodon ocellatus*), is not rare, being observed here nearly every year and also occurring in New-Jersey and Rhode Island waters. The "Portuguese butterfly" (*C. striatus*) is a straggler met with in 1894, one specimen being taken in October; it is not known elsewhere outside the West Indies. In 1897, in August and October, six examples of a strikingly beautiful new chaetodont (*C. bricei*) were obtained.

Five species of the typical sub-tropical family of snappers (*Lutjanidae*) are now known from Wood's Hole as stragglers, two being noticed for the first time in 1897. Besides the red snapper (*Neomenis aya*), the schoolmaster (*N. apodus*) and the muttonfish (*N. analis*), there were taken last year in September young specimens of the gray or mangrove snapper (*N. griseus*) and the dog snapper (*N. jocularis*). The first of these has been recorded from New-Jersey, but is not found in any abundance north of Florida; the second has not been previously reported north of the Florida Keys.

One of the most noteworthy captures was a small trigger-fish of the genus *Canthidermis*, taken in 1897; this is referable to *Cope's Balistes asperimus* from the Isthmus of Panama, the type of which in the Philadelphia Academy of Natural Sciences has been compared with the Wood's Hole specimen. No other examples are known, unless these prove to be the young of *Balistes sobaco* of Poey, from the West Indies.

In 1895 a porcupine fish (*Diodon hystrix*) was taken in Buzzard's Bay, near the station. The only other specimens known to have been found north of Florida were taken on the shores of Maryland many years ago.

The family of marine gars (*Esocidae*) has three members on the New-England coast, one of which (*Athlennus bilans*) is represented by a large specimen taken at Wood's Hole in 1895. This species normally ranges from the West Indies to Brazil, and is not elsewhere recorded north of Florida.

The "permit," or black-finned pompano (*Trachinotus goodei*), described in 1896 from the West Indies and Southern Florida, was first taken at Wood's Hole in 1894, and has since been found on several occasions. The species attains a weight of over twenty-five pounds, but only small specimens (three inches or less) have up to this time been obtained here.

One species of half-beak (*Hyporhamphus roberti*) is common at Wood's Hole, and in the current year another species (*Hemirhamphus brasiliensis*) was found for the first time. The latter is reported from Chesapeake Bay, but from no other localities north of Florida.

In August, 1898, there was taken a small file-fish of the genus *Alutera*, which resembles a fish known from Asiatic waters since pre-Linnean times, and described by Osbeck in 1757 as *Balistes monoceros*. It also has some points of similarity to the Cuban fish described and figured by Parra in 1787 under the vulgar name of "Hija barbuda," which was subsequently identified by Poey and called by him *Alutera guntheriana*; the latter is regarded by some recent authorities as identical with *A. monoceros*, but the lack of specimens has prevented a settlement of the question. The Wood's Hole fish differs in a number of important features from the foregoing, and apparently represents an undescribed species.

## MOTIONS IN SHAVING.

From The Philadelphia Times.

"Now that you've finished shaving me, how many strokes of the razor did it require?" asked the man in the chair, as he straightened up to have his hair combed.

"That's pretty hard to tell," said the barber.

"Of course it is. But you've been in the business how long?"

"Fifteen years."

"You ought to know by this time about how many strokes of the razor it requires to shave a man, supposing that you go over his face a second time."

"I might make a guess at it."

"All right. What's your guess? Remember that I have a hard beard."

"Well, I should say about 125."

"You're a good guesser, I don't think. Some time ago I got into the habit of counting the strokes of a razor every time I was being shaved. It's a good way to employ your mind. In shaving me you just made 732 strokes with the razor."

"I wouldn't have believed it."

"No man believes it until he takes the trouble to count. In my case I never knew the number to fall below five hundred, and it has gone more than eight hundred at times. I call it a stroke every time the razor is brought forward and then drawn back. I should judge that there are no fewer than five hundred strokes in a first-class shave. You remember that, and probably you can win a few bets."